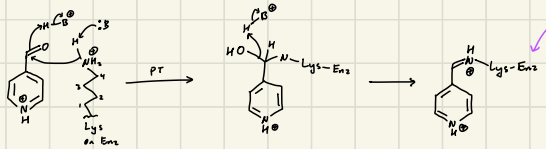
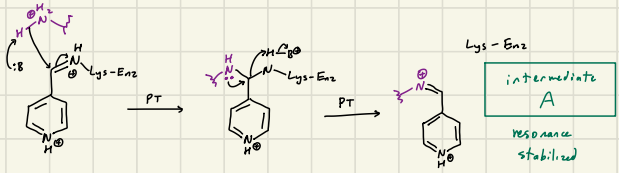
PLP Priming – attach to Enzyme (Step 0)



start from me unless they say "show priming"

Transaldimination – attach to substrate (Step 1)

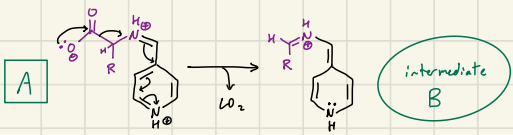
abbreviate unless they say to show

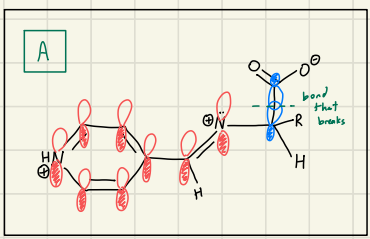


Step 2 Options

A → B

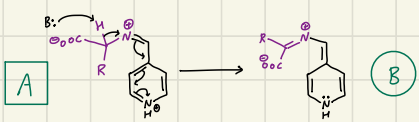
① Decarboxylation





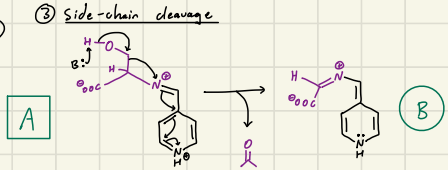
or

② Deprotonation



or

③ Side-chain cleavage



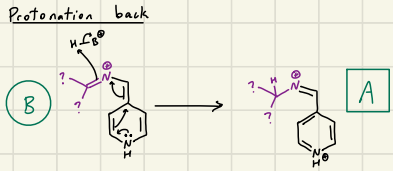
(or R=C generally)

2nd page →

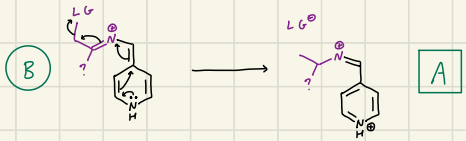
Step 3 Options

B → A

Protonation back

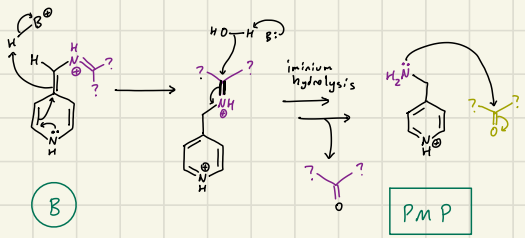


or any other e⊖ pushing w e⊖ sink, e.g. push off leaving group

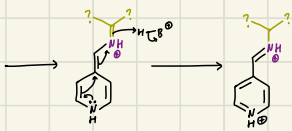


or Transamination – transfer N from ▨ to ▨

always abbreviate iminium breaking/forming



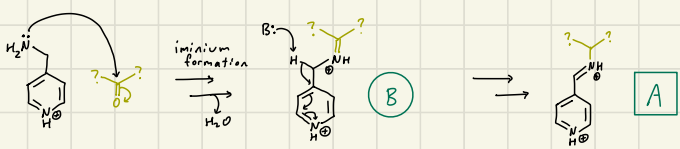
usually protonation back to get from B to A



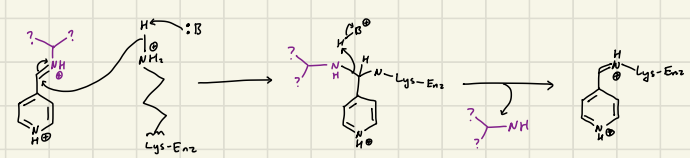
(may also push off LG or any other e⊖ sink pushing to get back to A)

Note: some rxns may start directly from PMP

~~Trans~~Amination – transfer N to ▨



Transaldimination Part 2 – reattach to Enzyme (Step 4)



abbreviate unless they say to show

done! ☺

3rd page →

SHMT w PLP case study to memorize

PLP priming

↓ transaldimination